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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/072,961 | 02/12/2002 | Yoshiaki Moriyama | Q68491 | 2264 |

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| EXAMINER | |
|---|---|
| EDWARDS, PATRICK L | |
| **ART UNIT** | **PAPER NUMBER** |
| 2624 | |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|---|---|---|
| 3 MONTHS | 03/27/2007 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/072,961 | MORIYAMA, YOSHIAKI | |
| | Examiner | Art Unit | |
| | Patrick L. Edwards | 2624 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *19 December 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-23 and 25-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23, 25-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12-19-2006 has been entered.

### *Response to Arguments*

2. Applicant's arguments filed on 12-19-2006 have been fully considered. A response to these arguments is provided below.

### 35 USC 112, First and Second Paragraph Rejections

Claims 3, 4, 11, 12, 19, and 20 have been amended to overcome the 112(2) rejections from the previous office action. The previous rejections are hereby withdrawn.

### Prior Art Rejections

*Summary of Argument:*

Applicant alleges that Schwab fails to "disclose or suggest a) contents being digital data, b) determining end timing of this content, and c) inserting a watermark." (see remarks pg. 11).

*Examiner's Response:*

With regard to all these points, applicant's arguments have been fully considered. Applicant's arguments with respect to points (b) and (c) are unpersuasive. Applicant's arguments that the video signal in Schwab is analog and not digital is persuasive. However, it does not follow that this claim is allowable. A new rejection under 35 U.S.C. 103 will be provided directly below.

Briefly regarding the points made by applicant that the examiner does not find persuasive, the digital code sequence of Schwab qualifies as a digital watermark. Further, Schwab discloses determining end timing because Schwab discloses encoding a video sequence that is displayed using fields. These fields have a specific amount of information that is displayed for a specific amount of time. Thus, the point in time that the last portion of the video signal of each field is read is known in time.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 9, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwab et al. (USPN 5,134,496) and well known prior art.

Regarding claims 1, 9, and 17 (claim 1 will be referred to in its representative capacity):

Schwab discloses the following limitations:

- determining a timing before an end timing of said contents (see Schwab Fig. 2 and corresponding description: The reference shows an end timing position (i.e. the end of the video signal) and the reference further shows determining a timing position before that end timing position (i.e. the end of the trailing sequence...shown as line 227).).
- setting an end timing of said embedded digital watermark in said contents at said determined timing (see Schwab Fig 2: As was mentioned above, the spot that was "determined" is the spot that is used to insert the trailing watermark.).

Schwab fails to expressly dislcose that the digital watermark is inserted into digital contents. Rather, Schwab is directed to inserting this digital code sequence into an analog signal. However, it would have been obvious to use these same principles in a digital video environment rather than an analog environment. Schwab discloses using a medium such as video tape (see col. 3 line 51). It is well known in the art (official notice) to use digital mediums to store and then display video signals. Thus, Schwab's principles apply with equal force in the digital environment.

Regarding claims 5, 13, and 21 (claim 5 will be referred to in its representative capacity):

The scope of claim 5 is substantially similar to that of claim 1. The only difference between claim 5 and claim 1 is that—in claim 5—the "determined position" corresponds to a position before a position where previous contents are switched to current contents. Schwab discloses this limitation because Fig. 2 (as described in col. 4 from lines 37 on) shows the encoding (embedding) of a watermark into a field. This process is repeated for future fields—which, when read, qualify as current contents making the previous field qualify as previous contents.).

Regarding claims 3, 11, and 19 (claim 3 will be referred to in its representative capacity):

The scope of claim 3 is substantially similar to that of claim 5. The only difference between claim 5 and claim 3 appears to be that claim 3 calls for the embeddign to be performed in previous contents, whereas claim 5 called for it to be performed in current contents. In light of the Schwab disclosure, this distinction is not significant. Schwab discloses embedding the watermark in multiple fields. Thus, for every "current content," there is a "previous content" which was embedded with watermark information.

Regarding claim 28, the digital aspect of this claim has already been addressed above.

Regarding claim 29, the digital code sequence is not visible to the viewer. It appears as a dropout and is therefore not visible as a watermark to the viewer.

Regarding claims 2, 4, 7, 10, 12, 15, 18, 20, and 23 Schwab does not disclose any delay time in reading the watermark. This makes sense, because the watermark is a "dropout", and is therefore read in real time with the reading of the video. It follows that difference between the set end timing position of the digital watermark and the end timing of the contents is greater than this delay.

Regarding claims 8 and 16, Schwab discloses embedding information that indicates that copying is prohibited (Schwab col. 5 lines 16-20 (and elsewhere throughout the specification).).

5. Claims 6, 14, 22, 25, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwab et al. (as was applied above) and further in view of Yoshiura et al. (EP 1 006 722 A2). The arguments as to the relevance of Schwab et al. as applied above are incorporated herein.

Regarding claims 6, 14, and 22 Schwab does not disclose the "one copy" watermark, and therefore does not disclose all of the limitation of these claims. Yoshiura, on the other hand, discloses a "copy once" watermark, and further discloses that after the contents containing the "copy once" watermark are copied once, that a "no more copy" (NMC) watermark is embedded in a "start timing" of the next set of contents. Yoshiura discloses this, e.g., at paragraphs [0070]-[0074] (The reference describes embedding the PN sequence into the picture P1—which is obviously at the start timing of the new contents).

It would have been obvious to one reasonably skilled in the art at the time of the invention to modify Schwab's copy prohibition method by adding a "copy once" feature as taught by Yoshiura. Such a modification would have allowed for customers to make a back-up copy of media that they had purchases. This is a beneficial system in that it remains consumer-friendly while preventing widespread piracy of the purchases content.

Regarding claims 25-27, Schwab does not disclose that the watermark is a pseudorandom noise generated watermark. However, Yoshiura does disclose this limitation throughout the specification (see, e.g., paragraph [0030] or paragraph [0075]).

It would have been obvious to one reasonably skilled in the art at the time of the invention to modify Schwab's watermark insertion method by using a pseudorandom process as taught by Yoshiura. Such a modification would

have allowed for a method of inserting/embedding a watermark that didn't deteriorate the quality of the image (see Yoshiura paragraph [0030]).

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick L. Edwards whose telephone number is (571) 272-7390. The examiner can normally be reached on 8:30am - 5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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